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### **DETAILED ACTION**

1. Acknowledgement is made of the amendment received on 11/21/2011.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephonic interview with Douglas Agopsowicz (Reg. No. 56792).

The claims in the application have been amended as follows:

In claims:

- (1) **Cancel claims 2-3 and 5.**

### ***Allowable Subject Matter***

3. Claims 1, 4, 6, and 8-12 are allowed.
4. The following is a statement of reasons for allowable subject matter:

The prior art of record, Daoud et al. does not teach or suggest:

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wherein the second frequency-increasing SSB modulator performs SSB modulation to obtain the LSB signal using a carrier frequency, the carrier frequency being higher than a carrier frequency used in the first frequency-increasing SSB modulator by a symbol frequency of the first input symbol and the second input symbol, such that the LSB signal and the USB signal are multiplexed in the same frequency band,

wherein the first frequency-increasing SSB modulator comprises a first Hilbert transformer and obtains the USB signal by multiplying a signal output from the first Hilbert transformer by a signal comprising a sine curve with a frequency  $(\omega_{1(first)} + \omega_{1(first)}/2)$ ,

wherein the second frequency-increasing SSB modulator comprises a second Hilbert transformer and obtains the LSB signal by multiplying a signal output from the second Hilbert transformer by a signal comprising a sine curve with a frequency  $(\omega_{1(second)} + \omega_{1(second)}/2)$ , and

wherein  $\omega_{1(first)}$  is the symbol frequency of the first input symbol,  $\omega_{1(second)}$  is the symbol frequency of the second input symbol,  $\omega_{1(first)}$  is the carrier frequency used in the first

frequency-increasing SSB modulator, and  $\omega_{1(second)}$  is the carrier frequency used in the second frequency-increasing SSB modulator.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kabir A. Timory whose telephone number is 571-270-1674. The examiner can normally be reached on 6:30 AM - 3:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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/KABIR A TIMORY/

Primary Examiner, Art Unit 2611